Reducing Community Viral Load to Achieve HIV Prevention

Moupali Das, MD, MPH
Director of Implementation Science and Evaluation Research
San Francisco Dept. of Public Health
Outline

• Viral Load and Transmission
• A Pivotal Time
• San Francisco Comprehensive Public Health Approach
  – San Francisco Baseline Results
  – IOM Recommendations for Evaluation
• The Way Forward: Transforming our Narrative
• Revolutionizing the Research Agenda: Asking the Right Questions at this Pivotal Time
VIRAL LOAD AND PREVENTION OF TRANSMISSION
Viral Load Directly Predicts HIV Transmission

Figure 1. Mean (+SE) Rate of Heterosexual Transmission of HIV-1 among 415 Couples, According to the Sex and the Serum HIV-1 RNA Level of the HIV-1–Positive Partner.

At baseline, among the 415 couples, 228 male partners and 187 female partners were HIV-1–positive. The limit of detection of the assay was 400 HIV-1 RNA copies per milliliter. For partners with fewer than 400 HIV-1 RNA copies per milliliter, there were zero transmissions.

Quinn et al NEJM 2000
Universal Testing and ART-Mediated Virologic Suppression Near Eliminates Perinatal Tx

FIG. 1. Trends in mother-to-infant transmission rate and maternal antiretroviral therapy: 1990–1999+ (Women and Infants Transmission Study Group). Rates per 100 (95% confidence interval).
ART-mediated Virologic Suppression Near Eliminates Sexual Tx

Prevention of HIV-1 Infection with Early Antiretroviral Therapy

It is a truth universally acknowledged that a medical intervention justified by observational data must be in want of verification through a randomized controlled trial.
Modeling Suggests ART-mediated Virologic Suppression Reduces HIV Transmission

<table>
<thead>
<tr>
<th>Infections Averted</th>
<th>Tx&lt;500</th>
<th>Tx All</th>
<th>Test &amp; Tx All</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1,554</td>
<td>2,169</td>
<td>2,810</td>
</tr>
<tr>
<td>2019</td>
<td>3,102</td>
<td>4,550</td>
<td>6,040</td>
</tr>
<tr>
<td>2029</td>
<td>4,940</td>
<td>8,221</td>
<td>12,189</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent Reduction in New Infections</th>
<th>Tx&lt;500</th>
<th>Tx All</th>
<th>Test &amp; Tx All</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>42%</td>
<td>59%</td>
<td>76%</td>
</tr>
<tr>
<td>2019</td>
<td>42%</td>
<td>61%</td>
<td>81%</td>
</tr>
<tr>
<td>2029</td>
<td>33%</td>
<td>55%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Two Cohort Studies Demonstrate Reduced Cohort VL predicts decreased HIV Incidence

Taken together, current observational, modeling, and randomized control data demonstrates that ART-mediated virologic suppression reduces transmission at an individual level and strongly suggests community or population level effect.

Wood E et al. BMJ. 2009 Apr 30;338:b1649
Kirk, G; CROI 2011
The Hypothesis

Comprehensive Public Health Approach
↑ Testing and Treatment
↓ Community Viral Load
↓ HIV Incidence
A PIVOTAL TIME: ADVANCES IN HIV PREVENTION, TESTING & TREATMENT
HIV in 1980s

Fear
Discrimination
Stigma
Prevention Controversial
No Testing
No Treatment

Case Finding
Surveillance
Interruption of Transmission
Systematic Treatment &
Case Management
Population Based Monitoring

Traditional Public
Health Approach
President Reagan to President Obama

Testing technologies: Rapid Test, 4\textsuperscript{th} gen HIV Ag/Ab, Viral load for Acute, Home testing

Prevention: US Success at near eliminating perinatal and blood-borne HIV

Wider availability of condoms, syringes

Treatment: Tremendous progress in 1\textsuperscript{st}, 2\textsuperscript{nd}, 3\textsuperscript{rd} generation of ART
Exciting Advances in HIV Prevention

Effectiveness and Safety of Tenofovir Gel, an Antiretroviral Microbicide, for the Prevention of HIV Infection in Women
Quarraisha Abdool Karim, et al.
Science 329, 1168 (2010);
DOI: 10.1126/science.1193748

Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men

All Biomedical Interventions are BEHAVIORAL interventions
ART Brought People Back From the Brink

Haitian Patient, before and after Receiving Free Treatment for HIV Infection and Tuberculosis. The photograph on the left was taken in March 2003, and that on the right in September 2003. Many impoverished patients in rural Haiti and Rwanda now receive comprehensive medical care through public–private partnerships.

Jim Kim and Paul Farmer, NEJM, 2006
Controversies

Treat HIV-1 Infection Like Other Infections—Treat It

Bruce D. Walker, MD; Nesli Basguz, MD
Should AIDS be renamed “Acquired Inflammatory Disease Syndrome”?

- Untreated HIV disease is associated with increased T cell activation/inflammation
- Treatment dramatically reduces inflammation
- The degree of residual inflammation during HAART is determined in part by CD4 nadir (strong effect < 200)
Expanded Treatment Options
THE VIRUS IS MORE TOXIC THAN THE MEDS

• Old paradigm: Drugs are toxic so defer therapy as long as possible

• New paradigm: Although new drugs are not completely benign, they are less “toxic” than the virus

• Rather than treating only when there was a strong reason to treat, the default is now to treat unless there is a strong reason not to treat
Universal OFFER of ART on Ward 86 and all SFDPH Community Health Clinics

“All patients, regardless of CD4 count, will be evaluated for initiation of antiretroviral therapy (ART)”

Decision to start ART made by the individual in conjunction with the provider

Modified from slide courtesy of Brad Hare, SFGH Community Forum
NYC Recommends AIDS Drugs for any Person with HIV

NEW YORK (AP) 1 Dec 2011— Health officials in the nation's largest city are recommending that any residents living with HIV be offered AIDS drugs as soon as the virus is diagnosed, an aggressive move that has been shown to prolong life and stem the spread of the disease...

NYC Mayor
Michael Bloomberg

Empire State building glowing red for World AIDS Day 2011

Dr. Tom Farley
NYC Health Commissioner

DHHS March 2012: ART is recommended for ALL HIV-Infected individuals

- Strength depends on CD4 strata:
  - CD4<350 AI (Strong; RCT)
  - CD4 <350- <500 AII (Strong, Obs nRT)
  - CD4>500: BIII (Moderate, Expert)

- Effective ART reduces sexual transmission
- Heterosexual AI (Strong RCT)
- All other risk groups Alll (Strong, Expert)
“Test & Treat,” or “High-Impact Combination Prevention,” or the “Medical Model”….

“Medical Ethics and the Rights of People with HIV Under Assault” by Sean Strub

Simply Testing and Treating will not eliminate the epidemic...

Figure 1: Highly active HIV prevention
This term was coined by Prof K Holmes, University of Washington School of Medicine, Seattle, WA, USA. STI=sexually transmitted infections.
“Si-w bay medikaman san manje, se lave men, siye até”

"Giving drugs without food is like washing your hands and drying them in the dirt."
Patient Care is more than ART provision

- Primary care provider (NP, Int Med, FP, ID/HIV)
- Social workers
  - Screening and referral for substance use or mental health concerns (HIV Specialty Psychiatry/Psychology)
  - Housing, disability, benefits (including ADAP enrollment)
- **Pharmacist lead ART adherence program**
  - 1:1 Assessments of barriers, education, medicine reviews, ongoing monitoring
- Patient education program and support groups
- **Linkage to care/retention support team (PHAST)**
- *Could not be done without political will ➔ Healthy SF covers undocumented; System of Prevention*
SAN FRANCISCO’S COMPREHENSIVE STRATEGY TO MAXIMIZE CASCADE OUTCOMES
The Hypothesis

Comprehensive Public Health Approach
↑ Testing and Treatment

↓ Community Viral Load

↓ HIV Incidence
San Francisco’s Approach to Maximizing the Continuum of Prevention, Care and Treatment

Primary Prevention Efforts
- PrEP, PEP, condoms, syringes
- Drivers
  1. Substance use
  2. Alcohol
  3. Meth
  4. Crack
  5. Poppers
  6. STDs, # of partners

LINCS: Linkage, Navigation & Retention Team
There are three primary goals for the NHAS:

- Reducing HIV incidence
- Increasing access to care and optimizing health outcomes
- Reducing HIV-related health disparities

**12 Cities Project and ECHPP:**
Enhanced Comprehensive HIV Prevention Planning and Implementation for Metropolitan Statistical Areas Most Affected by HIV/AIDS
Major Challenges in U.S. Implementation Cascade

Be Not Discouraged

• “Not everything that counts can be counted, and not everything that can be counted counts.”

---Albert Einstein
When the data are in hand, we should use it!

“But once the data are in hand, it is the failure to use those data for public health purposes that must be justified.” (Fairchild, 2007)

• Surveillance data and other data could not only be used to monitor and evaluate, but for real-time quality improvement: Maximize Cascade
  – Prior Diagnosis
  – Current and Past Location of care: Medical records
  – Treatment history, co-infections, resistance
  – For Linkage, Engagement, Retention & Re-Engagement
Using San Francisco’s Surveillance Data to Evaluate Our Continuum of Prevention, Care and Treatment

Time to Virologic Suppression

Testing → Diagnosis → Primary Care → Treatment → Virologic Suppression

↑ Testing

Diagnosis

Linkage

Primary Care

↑ Treatment

↑ Virologic Suppression

% Engaged in Care

% Virologic Suppression

Community Viral Load: Unified Marker of Prevention and Treatment

HIV prevalence, incidence, self-report and unrecognized infections: 2004-2011

* MSM3 Incidence not complete
# Testing (Now)

<table>
<thead>
<tr>
<th>Populations by Race/Ethnicity</th>
<th>United States</th>
<th>San Francisco</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>182</td>
<td>388</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>239</td>
<td>426</td>
</tr>
<tr>
<td><strong>Other/Unknown</strong></td>
<td>180</td>
<td>464</td>
</tr>
<tr>
<td><strong>African American</strong></td>
<td>175</td>
<td>351</td>
</tr>
<tr>
<td><strong>Hispanic/Latino</strong></td>
<td>160</td>
<td>328</td>
</tr>
<tr>
<td><strong>Asian/Pacific Islander</strong></td>
<td>225</td>
<td>319</td>
</tr>
</tbody>
</table>

Below 350

Below 500

~350 or below

---

- CDC HIV Surveillance Supplemental Report, Volume 16, Number 1
- SFDPH HIV Epidemiology 2010 Annual Report
Linkage (Now)

• % of PLWHA linked to medical care within 3 months after diagnosis
  – Surveillance: CD4, VL
Linkage at SFDPH Sites

- Clinical Sites:
  - Within 3 Months: 82%
  - Within 6 Months: 86%

- CBOs:
  - Within 3 Months: 70%
  - Within 6 Months: 78%
Testing and Linkage (Future)

Testing
- # of Tests (Insurance/claims)
- Testing Frequency (Need to know negatives)
- Percent Unaware of serostatus (NHBS)
- Percent Positivity (Need to know negatives)

Linkage (instead of using CD4/VL from surv)
- Self-report CTL programs
- Clinic visit schedules/EMR
- Reimbursement/Insurance
Engagement in Care (Future)

Engagement in Care

- Primary Care Visit Frequency in time period (Clinic EMR)
- Missed visits
- ER visits or hospitalizations
Treatment Indicators (Future)

- Median CD4 at treatment initiation
- Time from Diagnosis to ART initiation
- Percent in Continuous Care w/CD4>350
- Percent w/CD4<500 on ART (active surveillance or linkage with insurance, pharmacy/EMR, claims)
- Percent undetectable who’ve been on ART 12 months (EMR, ART data)
- Mortality
Treatment (Now)

Figure 1: Median time in months from HIV diagnosis to virologic suppression among persons diagnosed with HIV, 2004-2010, San Francisco.

Table: Median time to virologic suppression (in months) and confidence interval (in months) for each year of diagnosis.

<table>
<thead>
<tr>
<th>Year of Diagnosis</th>
<th># of Subjects</th>
<th>Median Time to Virologic Suppression (in Months)</th>
<th>Confidence Interval (in Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>728</td>
<td>32</td>
<td>28-35</td>
</tr>
<tr>
<td>2005</td>
<td>626</td>
<td>26</td>
<td>22-31</td>
</tr>
<tr>
<td>2006</td>
<td>579</td>
<td>19</td>
<td>16-24</td>
</tr>
<tr>
<td>2007</td>
<td>577</td>
<td>16</td>
<td>14-19</td>
</tr>
<tr>
<td>2008</td>
<td>527</td>
<td>13</td>
<td>10-15</td>
</tr>
<tr>
<td>2009</td>
<td>490</td>
<td>10</td>
<td>8-11</td>
</tr>
<tr>
<td>2010</td>
<td>446</td>
<td>---*</td>
<td>---*</td>
</tr>
</tbody>
</table>

*p < .0001

*Median time to suppression was undefined for 2010 (the K-M curve does not cross 50%).

Engagement in care

• Surveillance of CD4/VL monitoring frequency
  – Proportion in continuous care (2 or more visits in preceding 12 months at least 3 months apart)
Conceptual Framework for Community Viral Load Measures among HIV-infected Persons

A. Undiagnosed, with no VLs

B. Diagnosed, out of care, with no VLs

C. Diagnosed, in care, with no VLs

D. Diagnosed, in care, with VL
   D1. Diagnosed, in care, with detectable VL
   D2. Diagnosed, in care, with undetectable VL

Imputed CVL

Slide adapted from Priscilla Chu
Calculation of CVL

- Used San Francisco’s comprehensive HIV/AIDS surveillance system
- Calculated two measures of CVL:
  - Total: \( t_{CVL} = \sum_{i=1}^{n} \text{mostrecentVL} \)
  - Mean: \( CVL = \frac{\sum_{i=1}^{N} (VL)}{N} \)
Applications of the Measures

• Calculate cross-sectional CVL and examine geographic distribution and other disparities
  – San Francisco (Das CROI 2009, CROI 2010, PLOS 2010)
  – Washington DC (Castells, CROI 2011)
  – New York (Laraque, CROI 2011)

• Calculate annual measures of CVL and relate to new HIV Infections (Program and Research)
  – Ecologic
  – Cohort Study
## CVL Disparities, SF 2004-2008

<table>
<thead>
<tr>
<th>Overall</th>
<th>N</th>
<th>(%)</th>
<th>Mean CVL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>12,512</td>
<td>(100)</td>
<td>23,348</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-groups</th>
<th>N</th>
<th>(%)</th>
<th>Mean CVL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latino</td>
<td>1822</td>
<td>(15)</td>
<td>26,744</td>
</tr>
<tr>
<td>African-American</td>
<td>1825</td>
<td>(15)</td>
<td>26,404</td>
</tr>
<tr>
<td>Women</td>
<td>786</td>
<td>(6)</td>
<td>27,614</td>
</tr>
<tr>
<td>Transgender</td>
<td>291</td>
<td>(2)</td>
<td>64,160</td>
</tr>
<tr>
<td>IDU</td>
<td>1011</td>
<td>(8)</td>
<td>33,245</td>
</tr>
<tr>
<td>MSM-IDU</td>
<td>1791</td>
<td>(14)</td>
<td>36,261</td>
</tr>
<tr>
<td>Not on treatment</td>
<td>2924</td>
<td>(23)</td>
<td>40,056</td>
</tr>
<tr>
<td>Not engaged in care</td>
<td>4637</td>
<td>(37)</td>
<td>36,992</td>
</tr>
</tbody>
</table>

*(p<0.001 by Kruskal-Wallis test) in mean CVL by treatment history, race/ethnicity, age, gender, HIV transmission risk category, insurance status, and clinical status.
Spatial Distribution of Total CVL by Neighborhood, 2005-2008

Cumulative CVL (copies/mL)
- above 12 million (4th Qrtl)
- 5.6 - 12 million (3rd Qrtl)
- 3.9 - 5.5 million (2nd Qrtl)
- below 3.9 million (1st Qrtl)

Homeless (n=775)
Spatial Distribution of Mean CVL by Neighborhood, 2005-2008

Mean Viral Load (copies/mL)
- below 15,345 (1st Qrtl)
- 15,345-18,273 (2nd Qrtl)
- 18,274-26,524 (3rd Qrtl)
- above 26,524 (4th Qrtl)

(N) 
- Nob Hill (n=343)
- Downtown (n=1069)
- South of Market (n=417)
- Homeless (n=775)
- Sunset (n=278)
Mean CVL and New HIV Infections, 2004-2008

Minimum, Most Recent, Maximum CVL and Newly Diagnosed and Reported HIV cases

Refining CVL Calculation with Time-Weighted Averaging (AUC)
Community Viral Load Disparities

- Even in relatively richly-resourced San Francisco, disparities in CVL track with poor 5-year survival and neighborhood concentration of poverty
- CVL may be a useful marker for public health departments to target resources and address geographic disparities in HIV transmission and survival
CVL: New York & Washington D.C.

New York City
Mean viral load among HIV-infected persons with detectable mean viral loads, 2008

by United Hospital Fund Neighborhood
- 28,335 - 40,991 copies/mL
- 40,992 - 45,677 copies/mL
- 45,678 - 48,806 copies/mL
- 48,807 - 70,925 copies/mL
- Non-residential zones


Mean Community Viral Load by Ward, 2004-2008

Caveats, Concerns, Limitations, Critiques

• Surveillance Limitations (denominator issues)
  – Sample “undiagnosed” with NHBS
  – Cohort Data Evidence; Cluster RCT evidence
• Different VL assays
• Acute Infection (Stop Study Ag/Ab vs. RNA)
• Multiple Imputation: Does MAR assumption hold?
• Ecologic Fallacy (Alternative secular trends → STI, syphilis, gonorrhea, risk behaviors, serosorting)
Let Not the Perfect Be the Enemy of the Good!

• “The perfect is the enemy of the good.”
  Voltaire 1772
Can we get to a National or Global CVL Estimate?

- Yes, we can!
- Establish the baseline
- **Must modernize surveillance in the United States**
- We should pursue the exercise to delineate missing data, gaps in resources, technology, or other issues
- What will the added value be?
  
  *Follow trends in CVL ➔ HIV Incidence*
  
  *Single Indicator of Prevention and Care Success*
THE WAY FORWARD: TRANSFORMING OUR NARRATIVE
Data linkages are broken given our siloed databases and policies that make sharing information difficult.

We must update our policies to improve the sharing of data along the continuum.
Measuring High-Impact Prevention

Integrated Delivery Systems (IDS) process identified need to make better use of our limited IT capacity

Population Health and Prevention (PHP) Section integration

PCSI Plan - recommendations for communicable disease data integration

SFDPH awarded funding from CDC for integrated HIV data system
Institute of Medicine Report

Monitoring HIV Care in the United States

Indicators and Data Systems
Committee’s approach to its charge

- Use NHAS targets and existing indicators (PEPFAR, HP 2020), quality measures (NQF), and treatment standards (HHS Guidelines) as a basis for the recommended indicators
- Review public and private data systems pertinent to HIV care
- Identify critical points along care continuum
- Review the literature, expert presentations
- Were mindful of need to minimize reporting burden and cost
- Limited scope to adults diagnosed with HIV
Continuum of HIV care mapped to indicators of HIV care and supportive services

Testing

- Proportion with CD4+ cell count >200 and without a clinical diagnosis of AIDS

Diagnosis

- Proportion linked to care for HIV within 3 months of diagnosis

Primary Care

- Proportion with a measured CD4+ cell count <500 who are not on ART
- Proportion with HIV-associated nephropathy, hepatitis B (when treatment is indicated), or active tuberculosis who are not on ART
- Proportion of HIV-infected pregnant women who are not on ART

Treatment

- Proportion engaged in care for 12 or more months who have an undetectable viral load

Virologic Suppression

- All-cause mortality rate

Engagement/Retention

- Proportion who received 2 or more CD4 tests
- Proportion who received 2 or more viral load tests
- Proportion screened for chlamydia, gonorrhea, and syphilis
- Proportion screened for hepatitis C
- Proportion immunized for influenza

- Proportion who received 2 or more viral load tests
- Proportion screened for tuberculosis
- Proportion screened for hepatitis B
- Proportion immunized for hepatitis B (if needed)
- Proportion immunized for pneumococcal pneumonia
- Proportion who received drug resistance testing prior to ART initiation

- Proportion who received 2 or more CD4 tests
- Proportion screened for mental health disorders at least once in preceding 12 months
- Proportion screened for substance use disorders at least once in preceding 12 months
- Proportion assessed for need for
  - housing
  - food or nutrition
  - transportation

- Proportion linked to care for HIV within 3 months of diagnosis
- Proportion in continuous care for 12 or more months with CD4+ cell count ≥350

- Proportion with mental health disorder referred for mental health services who receive these services within 60 days
- Proportion with substance use disorder referred for substance abuse services who receive these services within 60 days
- Proportion who received mental health disorder referred for mental health services who receive these services within 60 days
- Proportion with an unmet need for
  - housing
  - food or nutrition
  - transportation

- Proportion screened for mental health disorders at least once in preceding 12 months
- Proportion screened for substance use disorders at least once in preceding 12 months
- Proportion assessed for need for
  - housing
  - food or nutrition
  - transportation

- Proportion engaged in care for 12 or more months who have an undetectable viral load
- Proportion on ART for 12 or more months who have an undetectable viral load

IOM Report: Monitoring HIV Care in the United States: Indicators and Data Systems 2012
BARRIERS TO DATA COLLECTION
US State Health Department
HIV/AIDS, Viral Hepatitis, and STD
Federal Program Reporting Requirements

The following is a graphic representation of the federal reporting requirements for core and supplemental HIV/AIDS grant awards administered by state health department HIV/AIDS directors.

Note: A full description of individual reports with federal agency designations is included on the reverse side.
Other barriers to data collection:

- Reimbursement policies and practices
- Variation in reporting requirements across states
- Incomplete reporting by providers
- Lack of mechanisms for health departments to share data across jurisdictions
- Staffing, administrative, and budgetary constraints
- Shifts in care coverage and across health care providers
- State variations in implementation of ACA
- Anonymous HIV testing
Recommendations

• HHS should maintain and institutionalize the existing effort to streamline data collection and reduce reporting requirements for grantees of federally funded HIV/AIDS programs.

• HHS should issue guidance to the HIV care community to clarify what patient information is permissible to share given federal and state privacy laws.
REVOLUTIONIZING THE RESEARCH AGENDA
San Francisco’s Approach to Maximizing the Continuum of Prevention, Care and Treatment

Primary Prevention Efforts
- PrEP, PEP, condoms, syringes
- Drivers
  1. Substance use
  2. Alcohol
  3. Meth
  4. Crack
  5. Poppers
  6. STDs, # of partners

↑ Testing
  → Diagnosis
  → Primary Care
  → ↑ Treatment
  → Virologic Suppression

↑ Routine Medical Testing
↑ Community Testing
↑ Linkage & Partner Services

Testing
Diagnosis
Primary Care
Treatment
Virologic Suppression

Mental Health Services
Substance Use Treatment
Housing Support

Treatment Adherence
Medical Case Management
ART Guidelines Uptake
STD & PCSI
Engagement & Partner Services

LINCS: Linkage, Navigation & Retention Team
Hospital Visit as Opportunity for Prevention & Engagement for HIV+ Drug Users

CTN0049 RCT

- Treatment as Usual
- Patient Navigator
- Patient Navigator + Contingency Management

- Hospitalized HIV+ substance users (CD4<350; detectable VL)
  - 800 participants
  - 10 sites
    - Miami
    - Atlanta
    - Baltimore
    - Boston
    - Philadelphia
    - Chicago
    - Dallas
    - Pittsburgh
    - Los Angeles
    - Birmingham
Modeling to Augment Evaluation: CVL in each compartment including those who fall off continuum

Time to Virologic Suppression

HIV

↑Testing → Diagnosis → Primary Care → ↑Treatment → ↑Virologic Suppression

Linkage → Engagement / Retention → Engagement / Retention

Median CD4 at HIV diagnosis
% Linked to Care within 3 Mo. of Dx
Median CD4 at ART initiation
% Engaged in Care
% Virologic Suppression

Time to ART Initiation

What CVL or % Supp → R<1?

Acknowledgments

People living with HIV/AIDS in San Francisco

SFDPH

UCSF
Diane Havlir, Elvin Geng, Edwin Charlebois, Steve Morin, Eric Vittinghoff, Steve Deeks, Brad Hare

CDC
Candice Kwan, Thomas Frieden, Kate Buchacz

Univ of Miami
Lisa Metsch, Dan Feaster, Lauren Gooden

White House Office of National AIDS Policy
Greg Millet, Jeff Crowley, and Grant Colfax
Municipalities Learning from Each Other: Strategic Implementation of Universal Antiretroviral Treatment to Maximize Reductions in HIV Incidence

SAVE THE DATE!

Friday, July 20, 2012
Renaissance Ballroom, 830-5pm

ABA Community Partner: Urban Coalition for HIV/AIDS Prevention Services (UCHAPS)
Chairs: Moupali Das, Peter McLloyd, and Blayne Cutler

Academic, government and community public health leaders will strategize regarding best practices in scaling up ART for both individual and public health benefit within their home communities.

-- Overview of Jurisdictions offering Universal Treatment
--Moving from the Emergency to Sustainable Response
--Finding New Partners and Forging New Relationships with the old to Finance Universal Treatment
--Harmonization of Data Systems and Innovative Uses of Technology to Improve Treatment Outcomes
--Politics, Policies, Protocols, and Philosophies